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Docket No. H0001537

**AMENDMENTS TO THE CLAIMS:**

1. (Currently Amended) A system comprising:  
a source of gas, the gas including NO<sub>x</sub>; and  
material for filtering the gas, the filter material including a catalyst for converting the NO<sub>x</sub> to NO<sub>2</sub>, and an alkali for adsorbing the NO<sub>2</sub> without desorption reducing levels of NO<sub>x</sub> in the gas.
  2. (Original) The system of claim 1, wherein the alkali is coated on support particles, and wherein the coated support particles are mixed with the catalyst.
  3. (Original) The system of claim 1, wherein the catalyst is coated on particles of the alkali.
  4. (Original) The system of claim 1, wherein the alkali is coated on particles of the catalyst.
  5. (Original) The system of claim 1, wherein the catalyst and alkali are layered.
  6. (Original) The system of claim 1, wherein the filter material further includes chromium oxide.
  7. (Original) The system of claim 1, further comprising air conditioning apparatus downstream the filter material.
  8. (Currently Amended) The system of claim 1, further comprising a first support structure for the catalyst and second support structure for the alkali, wherein the first and second structures being are spaced apart from one another, and wherein the catalyst and the alkali are independently optimizable.
- Claim 9 (Cancelled).

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10. (Original) The system of claim 8, further comprising a CATOX, wherein the catalyst and first support structure are integrated with the CATOX.

11. (Original) The system of claim 8, further comprising air conditioning apparatus midstream between the first and second support structures.

12. (Original) A method of operating the system of claim 8, wherein the independently optimizable catalyst and alkali are operated at different temperatures.

13. (Original) The system of claim 1, wherein the catalyst includes manganese oxide and copper oxide, and wherein the alkali includes potassium.

14. (Currently Amended) The system of claim 1, wherein the catalyst includes a least one of a ~~Noble~~noble metal and transition metal.

15. (Currently Amended) An NOx filter comprising:  
a catalyst for oxidizing NO to NO<sub>2</sub>;  
a first support structure for the catalyst;  
an alkali for adsorbing the NO<sub>2</sub>; and  
a second support structure for the alkali;  
the first support structure spaced apart from the second support structure and allowing the catalyst to be used in a different environment than the alkali;  
wherein the catalyst and the alkali are independently optimizable.

16. (Original) The filter of claim 15, wherein the catalyst includes manganese dioxide and copper oxide, and wherein the alkali material is potassium carbonate.

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17. (Currently Amended) The filter of claim 15, wherein the catalyst includes at least one of ~~Noble~~noble metal, a transition metal, and iron.

18. (Currently Amended) A method of using the filter of claim 15, wherein the catalyst and alkali ~~first and second vessels are operated~~used at different temperatures or pressures.

19. (Currently amended) Apparatus comprising:  
a CATOX; and  
a split layer PTF including a catalyst integrated with the CATOX and an alkali downstream from the catalyst, the catalyst oxidizing the NO to NO<sub>2</sub>, the alkali adsorbing the NO<sub>2</sub> without desorption.

20. (Currently amended) An environmental control system comprising:  
a CATOX;  
an air conditioning system (ACS) downstream from the CATOX; and  
a post treatment filter downstream from the CATOX, the filter including a catalyst and ~~an~~ an alkali.

21. (Original) The system of claim 20, wherein the catalyst is midstream between the CATOX and ACS, and the alkali is downstream the ACS.

22. (Withdrawn).